

(19) World Intellectual Property Organization  
International Bureau



(43) International Publication Date  
31 July 2003 (31.07.2003)

PCT

(10) International Publication Number  
WO 03/062270 A2

(51) International Patent Classification<sup>7</sup>: C07K 14/435

[RU/RU]; Moscow (RU). LUKYANOV, Sergey [RU/RU];  
Moscow (RU). PUNKOVA, Natalia [RU/RU]; Moscow  
(RU).

(21) International Application Number: PCT/IB03/00907

(74) Agents: PATTERSON, B., Todd et al.; Moser, Patterson  
& Sheridan, LLP, 3040 Post Oak Blvd., Suite 1500, Houston,  
TX 77056 (US).

(22) International Filing Date: 17 January 2003 (17.01.2003)

(81) Designated States (national): AE, AG, AL, AM, AT, AU,  
AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU,  
CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,  
GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,  
LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW,  
MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE,  
SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ,  
VC, VN, YU, ZA, ZM, ZW.

(25) Filing Language: English

(84) Designated States (regional): ARIPO patent (GH, GM,  
KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW),  
Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),  
European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE,

(26) Publication Language: English

(30) Priority Data:  
60/351,518 22 January 2002 (22.01.2002) US

(71) Applicant (for all designated States except US): EVRO-  
GEN, JSC [RU/US]; 16/10 Miklukho-Maklaya Street,  
Moscow, AL 77777 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): GURSKAYA,  
Nadejda [RU/RU]; Moscow (RU). FRADLOV, Arkadiy

[Continued on next page]

(54) Title: NOVEL FLUORESCENT PROTEINS FROM AEQUOREA COERULSCENS AND METHODS FOR USING SAME

10 20 30 40 50 60  
5' ATTCAAAACACTGCCAGAATTGGATAGATTCCTGCTACTTCACACCCATAAAAGAC  
70 80 90 100 110 120  
AGAAAGATGAGTAAGGGACCCAGAACCTTCACTGGAGTTGCCCCAACTCTTATTGATTA  
M S K G A E L F T G V W P I L I B L  
130 140 150 160 170 180  
ATGGTGTATGTTATGGCACAAATTCTCTGCTGAGGGAGGGCAAGGTGATGCCA  
N G D V W G H K F S V S G E G B D A T  
190 200 210 220 230 240  
TACGGAAAGTAAACCTTAAATTATGGCACTACAGGAAACTACACTGTTCCATGCCA  
Y G R L T L K F I C T T G K L P V W F  
250 260 270 280 290 300  
ACACTTGTCATCTACTCTCTCTATGGTGTCTGGTTCAAGATATCCAGATCATATG  
T L V T F S Y G V Q C F S R Y T P D B M  
310 320 330 340 350 360  
AAACAGCATGCTTCAAGTGGCAATGCCATGGAAAGGTATATACAGGAAAGAACTA  
K Q H D F F K S A M P E G Y I Q E R T X  
370 380 390 400 410 420  
TTTTCAAGATGACGGGAATACAAGTGGCTGCTGAAGTCAGTCACAGCTGATACCC  
P F F K D D G H Y T K S R A E V K F E G D T  
430 440 450 460 470 480  
CTGGTTAAATGAGATTGAGTTAACAGGTACTGGATTAAAGAAGATGGAAACATCCGG  
L V N R I E L T G T D F K E D G H I L G  
490 500 510 520 530 540  
ATAAAATGGATACAACTATAACGCAACATAATGATAACATCATGACAGACAAAGCAAA  
N K M E Y N Y H A H E V Y I M T D K A K  
550 560 570 580 590 600  
AAATGGAACTCAAGTTAACCTCAAAATTAGACACACACATTGAGATGGAAAGCCTAACCT  
N G I K V H F K I R H N I E D G S V Q L  
610 620 630 640 650 660  
GCAGACCAATTGACAAATATCCATGGCGATGGCCCTGCTCTTACCAAGAAAC  
A D H Y Q Q H T F I G D G P V L L P D H  
670 680 690 700 710 720  
CATTAACCTGCGCACACAAATCTACCCCTTCCAAAGATGCCAACGAAAGAGATCACATG  
H Y L S F Q S T L S K D P H E K R D H N  
730 740 750 760 770 780  
ATCTATTTGAGTTAACAGCTGCGATTACACATGGCATGATGAAATTACAC  
I Y F E F V T A A I T E G M D E L Y K  
790 800 810 820 830 840  
TAAATGTATAGACTCAAGTTGACACTAACGTTGCGAACAAATTACTAAAATCTCAGGGT  
850 860 870 880 890 900  
TCCCTGGTTAAATCAGGCTGACATATTATACATATTATAGATTCAATTAGAATTATTA  
910 920 930 940  
AACTTTATAGATGTTATTGATAGGGGTATTTCTTATT 3'

WO 03/062270 A2